

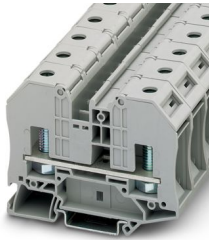
RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/in/products/3049042>

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Bolt connection terminal block, nom. voltage: 1000 V, nominal current: 125 A, number of connections: 2, number of positions: 1, connection method: Bolt connection, Rated cross section: 35 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- The special clamping nuts can be actuated with a normal screwdriver
- Easy bridging and potential distribution using the patented plug-in bridges from the CLIPLINE complete system
- Quick and easy connection with fold-up hinged covers which hold the clamping nuts captive. With the covers folded open, the bolt is free to accept the cable lugs
- After closing and engaging the covers, the clamping nut automatically aligns with the threaded bolt and can be tightened easily.
- The screws are secured against loosening by captive spring-loaded spacers
- Large-surface labeling options in the terminal center and above the terminal points
- The use of the switching lock effectively prevents unintentional switching
- The hinged cover cover the live metal parts including the insulated cable lugs in the clamping area so that they are touch proof
- Testing with the standardized test adapters and test plugs of the CLIPLINE complete system
- Tested for railway applications

Commercial data

Item number	3049042
Packing unit	25 pc
Minimum order quantity	25 pc
Sales key	BE4
Product key	BE4313
Catalog page	Page 385 (C-1-2019)
GTIN	4046356140027
Weight per piece (including packing)	95.72 g
Weight per piece (excluding packing)	95.72 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Notes

General	Note: the BE-RT... path extension is to be used for non-insulated cable lugs (see accessories).
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General

Note	The rated insulation voltage applies to insulated cable lugs acc. to DIN 46237:1970-07 and for uninsulated cable lugs acc. to DIN 46234:1980-03 with path extension.
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Product properties

Product type	Bolt connection terminal block
Product family	RT
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Number of positions	1
Number of connections	2
Number of rows	1
Potentials	1

Data management status

Article revision	06
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Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	4.06 W

Connection data

Number of connections per level	2
Nominal cross section	35 mm ²

Level 1 above 1 below 1

Screw thread	M8
Stripping length	The stripping length depends on the specification provided by the cable lug manufacturer.
Connection in acc. with standard	IEC 60947-7-1
Nominal current	125 A
Maximum load current	125 A (with 35 mm ² conductor cross section)
Nominal voltage	1000 V (Rated voltage for open disconnect point 500 V)
Nominal cross section	35 mm ²

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Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	2.5 mm ² ... 35 mm ²
Cross section range AWG	14 ... 2 (converted acc. to IEC)
Hole diameter	8.4 mm
Width	16 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	4.5 ... 5 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	16 mm ² ... 25 mm ²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	4.5 ... 5 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	2.5 mm ² ... 6 mm ²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm
Bolt diameter	8 mm
Identification color of ring cable lugs : blue	2.5 mm ²
Identification color of ring cable lugs : yellow	6 mm ²

Ex data

Rated data (ATEX/IECEx)

Identification	⊕ II 2 G Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3049194 D-RT 8
	3003062 TPN-UK
	3049916 BE-RT 8
	1205066 SZS 1,0X4,0 VDE
	3022276 CLIPFIX 35-5
List of bridges	Plug-in bridge / FBS 2-10 / 3005947
	Plug-in bridge / FBS 5-10 / 3005948
Bridge data	57 A / 10 mm ²
Ex temperature increase	40 K (125 A / 35 mm ²)
Rated voltage	690 V
for bridging with bridge	690 V
Rated insulation voltage	630 V
output	(Permanent)

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Ex level General

Rated current	125 A
Maximum load current	125 A
Contact resistance	0.09 mΩ

Ex connection data General

Torque range	4.5 Nm ... 5 Nm
Nominal cross section	35 mm ²
Rated cross section AWG	2
Connection capacity rigid	2.5 mm ² ... 35 mm ²
Connection capacity AWG	14 ... 2
Connection capacity flexible	2.5 mm ² ... 35 mm ²
Connection capacity AWG	14 ... 2

Dimensions

Width	20.3 mm
End cover width	2.2 mm
Height	84 mm
Depth on NS 35/7,5	63.8 mm
Depth on NS 35/15	71.3 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Smoke gas toxicity NFPA 130 (SMP 800C)	passed

Electrical tests

Surge voltage test

Test voltage setpoint	9.8 kV
Result	Test passed

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Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 35 mm ²	4.2 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes
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Mechanical tests

Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Test force setpoint	10 N
Result	Test passed

Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2018-05
Spectrum	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5$ Hz to $f_2 = 250$ Hz
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3

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Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, no longer than 24 h, -60°C to +70°C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (operation)	20 % ... 90 %
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

Connection in acc. with standard	IEC 60947-7-1
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Mounting

Mounting type	NS 35/7,5
	NS 35/15

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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/3049042>



IECEE CB Scheme

Approval ID: DE1-62814



VDE Zeichengenehmigung

Approval ID: 40022553

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	1000 V	125 A	-	2.5 - 35



cULus Recognized

Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	130 A	-	-
Use group C				
	600 V	130 A	-	-



EAC Ex

Approval ID: RU C-DE.HA91.B.00066



IECEx

Approval ID: IECExPTB08.0063U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	690 V	125 A	-	2.5 - 35



ATEX

Approval ID: PTB09ATEX1003U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	690 V	125 A	-	2.5 - 35



CCC

Approval ID: 2020322313000627



UKCA-EX

Approval ID: CSAE 22UKEX1085U

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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

ETIM

ETIM 9.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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